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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,603	11/03/2004	Gerhard Nestler	260740US0PCT	5700
22850	7590	06/19/2006	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			CHOI, LING SIU	
			ART UNIT	PAPER NUMBER

1713

DATE MAILED: 06/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/511,603

Applicant(s)

NESTLER ET AL.

Examiner

Ling-Siu Choi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 27 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the Amendment filed March 27, 2006. Claims 11-12 have been added and claims 1-12 are now pending. Claim objections were withdrawn and claim rejections are maintained.

Claim Objections

2. Claim 7 is objected to because of the following informalities: claim 7, line 4, "combination thereof content of less than 400 ppm as a starting material" is suggested to be changed to --combination thereof at a content of less than 400 ppm, by weight, based on the amount of acrylic acid as a starting material--

Appropriate correction is required.

Claim Analysis

3. Summary of claim 1:

A process to prepare a low-odor hydrogel-forming acrylic acid polymer, comprising the steps of	
A	(i) preparing a polymeric hydrogel by free-radically polymerizing a monomer composition comprising at least 50 wt% of acrylic acid containing volatile saturated carboxylic acids selected from the group consisting of acetic acid, propionic acid and combinations thereof as impurities in a total amount of <u>less than 400 ppm</u> , by weight, based on the amount of acrylic acid in an aqueous polymerization medium and (ii) converting the hydrogel into a particulate hydrogel or into hydrogel-forming powder; and optionally
B	treating the particulate hydrogel or the hydrogel-forming powder with a crosslinking substance which, actually or latently, contains at least two functional groups capable of reacting with the carboxyl groups on the addition polymer

Summary of claim 7

A method to prepare a low-odor hydrogel-forming acrylic acid polymer comprising
polymerizing an <u>acrylic acid</u> having a propionic acid, acetic acid, or combination thereof at a content of <u>less than 400 ppm</u> as a starting material

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claims 1 and 4-12, rejected under 35 U.S.C. 102(e) as being anticipated by Irie et al. (US 6,388,000 B1).

The following rejection is based on the amount of impurities is zero ppm which reads on the total amount of less than 400 ppm

Irie et al. disclose a method to prepare an absorbent resin, comprising the steps of preparing a water-soluble unsaturated monomer having a ratio of neutralization in the range of 30-100 mol % and containing 50-100 mol % of an acrylate; then polymerizing the monomer in the presence of a first cross-linking agent in an amount of 0.005-5 mol%, based on the amount of monomer; and pulverizing and/or granulating to obtain powdered absorbent resin, wherein the cross-linking agent contains at least two functional groups (abstract; cross-linking agent: col. 10, lines 51-67 and col. 11, lines 1-23; claims 1 and 3). Irie et al. further disclose that the absorbent resin is used in the fields of hygienic materials (col. 1, lines 63-64). Thus, the present claims are anticipated by the disclosure of Irie et al.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over in Irie et al. (US 6,388,000 B1) in view of Saxer et al. (US 5,504,247).

The disclosure of Irie et al. is adequately set forth in paragraph 5 and is incorporated herein by reference.

The difference between the present claims and the disclosure of Irie et al. is the requirement of (a) a specific crude acrylic acid to be used in the present invention and (b) a specific process to purify the crude acrylic acid to be adapted in the present invention.

Saxer et al. disclose the crude acrylic acid having 0.250% of acetic acid and 0.021 % of propionic acid is purified by a fractional crystallization to lead to a purified acrylic acid having 0.018 % of acetic acid and 0.005% of propionic acid , wherein the fractional crystallization comprises a cooling from [5 to -5°C] to about [-10 to -25°C] in the dynamic crystallization step and a cooling from [0 to -15°C] to [-30 to -15°C] in the static crystallization step (Table 4). Saxer et al. further disclose that the purification method can reduce the amount of residues to be disposed of and increasing the output of pure acrylic acid (col. 2, lines 27-32). In light of such benefits, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the method disclosed by Saxer et al. in the disclosure of Irie et al. because Irie et al.

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recognize to use the purified acrylic acid and obtain the present invention.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

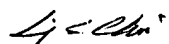
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on 571-272-1114.

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LING-SUI CHOI
PRIMARY EXAMINER

June 5, 2006